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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,548	05/29/2001	Elon Barnes	01/22080	4020

7590 09/26/2002
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EXAMINER

BORIN, MICHAEL L

ART UNIT	PAPER NUMBER
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1631

DATE MAILED: 09/26/2002 1/

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/865,548

Applicant(s)
Barnes et al

Examiner
Michael Borin

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

Extensions of time may be available under the provisions of 37 CFR 1.136 (e). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.

- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claims 1-50 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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Part III DETAILED ACTION

Claims 1-50 are currently pending.

Restriction Requirement

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-8, drawn to first method of identifying peptides originating from a particular cell type, classified in class 435, subclass 7.1.
- II. Claims 16-24, drawn to second method of identifying peptides originating from a particular cell type, classified in class 435, subclass 7.1.
- III. Claim 27, drawn to method of identifying peptides originating from cancer-associated proteins, classified in class 435, subclass 7.1.
- IV. Claims 28, drawn to method of identifying peptides originating from proteins associated in development of autoimmune diseases, classified in class 435, subclass 7.1.
- V. Claim 29, drawn to method of identifying peptides originating from a virus, classified in class 435, subclass 7.1.
- VI. Claim 30, drawn to third method of identifying peptides originating from a particular cell type, classified in class 435, subclass 7.1.

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- VII. Claims 9,10, drawn to electronic data storage device listing peptides identified by method of Group I, classified in class 550, subclass 170 (or 345, subclass 521).
- VIII. Claims 25,26, drawn to electronic data storage device listing peptides identified by method of Group II, classified in class 550, subclass 170 (or 345, subclass 521).
- IX. Claims 31,32, drawn to electronic data storage device listing peptides arranged according to their association with pathology and according to their ability to bind to MHC molecules, classified in class 550, subclass 170 (or 345, subclass 521).
- X. Claims 11-15, drawn to kit containing containers with individual peptides identified by method of Group I, classified in class 435, subclass 810.
- XI. Claims 33,34, drawn to method of eliciting an immune response, classified in class 424, subclass 278.1.
- XII. Claims 35,36, drawn to method of treating a pathology, classified in class 514, subclass 02.
- XIII. Claims 37-45,48, drawn to peptides, classified in class 530, subclass 300, in general.

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- XIV. Claims 46,47,49, drawn to peptide conjugates, classified in class 530, subclass 300, in general.
- XV. Claim 50, drawn to method of eliciting an immune response, classified in class 424, subclass 278.1.

The inventions are distinct, each from the other because of the following reasons:

Inventions I-VI are related as independent and/or patentably distinct methods of use. The methods of Groups I,II,VI each require steps not required for other methods (e.g., method of Group II requires obtaining cells co-expressing proteins of interest and MHC molecules; method of Group VI requires cells over-expressing proteins or mutated cells, etc). The methods of Group III-VI have different requirements and different effects (as compared to Groups I,II,VI), as they are drawn to identification of peptides originating from proteins (rather than cells) - such as proteins from cancer proteins (Group III), development proteins (Group IV) - and peptides originating from viruses (Group V). Methods of use XI, XII,XV have modes of operation, functions and effects different from methods of Groups I-VI. Methods XI and XII are patentably distinct as they have different functions and effects. Method

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of use of Group XV is seemingly unrelated from methods of Groups XI, XII as it utilizes different products.

Electronic data storage devices of Groups VII, VIII are patentably distinct from methods of identifying I and II, respectively, as peptide sequences can be recorded on any time of medium other than computer readable (e.g., on paper), and because a computer readable medium can contain any type of information, other than the sequence of peptides identified by methods I/II. Electronic data storage device of Group IX is unrelated to Groups I and II and there is no common technical feature linking said groups. The electronic data storage devices of Groups VII-IX differ in the content of the information stored thereon.

The kit of Group X is patentably distinct from method of identifying of Group I as the peptides contained in the kit can be obtained by other methods (e.g., enzymatically), and can be find other applications (e.g., in peptide synthesis).

The single peptide products of Groups XIII, XIV are unrelated to Groups I-XII as they are directed to unrelated products or methods of making/use.

The conjugate peptides of Group XIV are distinct from peptides of Group XIII (the structure of which is limited to particular SEQ ID No; the claims of Group XIII have closed "consisting" format) as they are drawn to conjugates and therefore require additional structure elements not required for peptides of Group XIII.

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Sequence Election Requirement Applicable to Groups XIII- XIV

In addition, each of the Groups XIII, XIV reads on a plurality of independent and/or patentably distinct sequences (see, e.g., claims 37,40). Each peptide sequence is independent and/or patentably distinct because they are unrelated compounds, there is no disclosed core structure required for a common utility, and because each of these compounds possess different structure and/or physico-chemical properties, and/or capable of separate manufacture and/or use. **For an elected Group the Applicants must further elect a single amino acid sequence. This is a restriction, not election of species requirement.** Examination will be restricted only to a Group drawn to elected sequence.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, and because of their recognized divergent subject matter, and the necessity for non-coextensive literature searches restriction for examination purposes as indicated is proper.

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Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(l).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Borin whose telephone number is (703) 305-4506. Dr. Borin can normally be reached between the hours of 8:30 A.M. to 5:00 P.M. EST Monday to Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Mr. Michael Woodward, can be reached at (703) 308-4028. The fax telephone number for this group is (703) 305-3014.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

MICHAEL BORIN, PH.D
PRIMARY EXAMINER

